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What is Knowledge Management about?

A consideration from a management point of view

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Introduction

While management fields like quality, project or risk have got a standardised definition the same is missing for knowledge management. The discussion or competition regarding a reasonable conception what knowledge management is about is still in process. However, it is remarkable that there are technology-based suggestions for defining "knowledge management". If today anybody came up with the idea e.g. to define quality management this way, (s)he would not succeed, for we have already understood that technology is a requirement to manage quality effectively and efficiently, but that technology in no event can replace the management activity.

This article suggests a conception of knowledge management that includes the management process as integral part of knowledge management and appreciates the affinity to other management fields.

Approaches to define knowledge management

Unfortunately, the currently most common approach to knowledge management is the technology-based approach. This means mainly the deployment of search technologies combined with interfaces to other applications. Such approach can also be named "Warehouse" approach.

An important aspect of this approach is that knowledge management is about restoring information. In other words an information gained in the past shall be used in a current task. Hence, knowledge management is concerned with the question how to re-use knowledge in an organisation.

To continue the analysis: Does an organisation have re-usable knowledge at all? Just making data available again does not mean that the knowledge contained in the data is understood and can be applied.

We can keep in mind that knowledge from a current project or process cannot simply be stored, but has to be adapted in a way that later will allow to re-use it effectively and efficiently in a new task.

Knowledge management as management of knowledge

It is a merit of the quality management movement to point at the dynamic of management. Each management describes a control loop that formally mirrors the continuous improvement. The Deming Wheel with its four steps is a famous representation for such a control loop: Plan - Do - Check - Act, also known as PDCA Cycle. Knowledge management also has to contain this control loop; any technology on knowledge management has to support the control loop. A layout of the knowledge management control loop can e.g. displayed as follows:

- Harvesting knowledge: This is the step of collecting knowledge. Using the term "harvesting" makes sense, for knowledge is something growing, constitutes a fundamental need of any organisation, and represents a major value though it is not explicitly shown in the balance sheet. Harvesting has to be carried out with the further steps of adapting and re-using in mind.
- Adapting knowledge: To be re-usable knowledge has to be stored in a way that preserves those issues critical for success. This refers to the contextual design of knowledge management which will become subject later in this text.
- Re-using knowledge: it is not sufficient for knowledge management to restore the information. Knowledge management has to accompany the process of applying knowledge to serve as input source for improving knowledge.
- The improvement of knowledge: Knowledge is nothing simply static but changes with new insights and new (technological) opportunities. The same way as the continuous improvement in quality management knowledge management has to strive for continuous improvement of knowledge.

The disposition of knowledge in knowledge management can be done e.g. by using roadmaps. Roadmaps are kind of templates that contain knowledge with regard to a specific project, process or a part of these and put emphasis on critical success factors. It is important not simply to store knowledge in form of data. Questions are of major value when knowledge shall be re-used later - questions generated from harvested knowledge and applied in a current task. Knowledge is not prescriptive which only would result in doing things as they always have been done. Knowledge is inspiring - with the license to think.

Content of Knowledge Management

Knowledge management has first of all enquire the success factors critical to complete the task as such knowledge is of particular importance and interest. Re-

stricting to really necessary knowledge prevents a flood of information when everything is just stored. Knowledge management has to focus on what is really essential. A brief overview shows which knowledge elements in a process or project are important for the purpose of re-use.

Expectations

Knowledge is not end in itself but has a clear focus: customer requirements. Customer have to be understood in the broadest sense, external and internal customers. Customer is everybody who directly or indirectly follows a predecessor in the workflow. It is important to fully understand the customer requirements, for all further objectives are derived from the customer requirements.

Objectives

Based on the expectations, objectives can be defined. The objectives consist of three main components: what is to be produced, when it must be completed, and how much resource will be required to complete the effort in the specified time.

Outcomes - WHAT

Outcomes are the key outputs of the work effort required to complete the overall objective. WHAT is done. Outcomes break down the expectations into discrete and manageable parts.

Roles and Responsibilities - WHO

Reusable knowledge is concerned with teams. WHO plays what role and is responsible for completing which task.

Knowledge Management takes into consideration the motivation of each single team member. This supports the assignment of team members to specific tasks and improves morale and self-conception of teams.

With regard to the outcomes responsibilities have to be specified. Typical roles are approval, monitoring and owner. Knowledge management has to know about potential team members and their potential roles.

Scheduling - WHEN

Regardless the specific content of a task it can be considered as and scheduling can be performed the same way as known from project management. The outcomes which were determined before can be broken down into work packages. Each work package is specified by naming an owner, start and finish date and the duration. A simple bar chart can display the project in terms of schedule. - Such project management will later be of high importance when knowledge will to be reused.

Bottlenecks

In every work sequence there are bottlenecks that limit the overall throughput. Causes can be machines or equipment, but also process organisation, skills or a specific person. Mostly, bottlenecks are

well known within an organisation. The effect can be mitigated by identifying, analysing causes and developing an option. Knowledge management has to accompany all bottlenecks for these can have significant impact on delaying the process or project.

Risk Management

Wherever objectives have to be achieved there are factors that jeopardise achieving the objectives. Therefore risk management has an interface to knowledge management. The identification and analysis of risks, planning of contingency actions and proactive, preventive actions provide a great opportunity to reuse this knowledge.

Benefits of Knowledge Management

Knowledge is also called 'intellectual capital'. This makes clear that talking about knowledge means talking about an assets. Like with other assets it is best used when being invested. This is valid for the knowledge asset, too. Not reusing harvested, successful knowledge in a new task would be like wasting money: It results in the famous re-inventing of the wheel which obviously is not a good practice.

Knowledge management improves quality, for it controls processes or projects based knowledge transformed to best practices. Knowledge management contains the strength of continuous improvement by continuously updating roadmaps and adopting latest knowledge.

Typical uses of knowledge management are all the areas which can build upon acquired knowledge. Among others are the following examples:

- An organisation consists of several areas. On of these areas outperforms the others. Knowledge management enables to grasp the specific 'recipe for success' of the outperforming area and pass this on to the other areas.
- An expert develops a model to increase success within a specific area of expertise. Knowledge management can be use to further refine the process and make the ready for use.
- An organisation consists of several areas using the same process. Knowledge management can be used to create an overall standard and continuously improve the process.
- An organisation experiences personnel the company, e.g through fluctuation or change of generation. Knowledge management can assist to preserve expertise and make it available for new personnel.
- A consulting company develops a new concept and wants to provide their clients with this concept in form of a 'digital expert'. Roadmaps can be created within knowledge management to allow clients reusing the 'best practice' as developed by the consulting firm.
- An organisation wants to map their quality process in a way that they are

taken from reality, reused and continuously improved. Knowledge management allows to harvest such expertise and make it available for the future for continuous refinement.

- An organisation has understood the paramount value of their knowledge, their intellectual capital and wants this to be safely stored. Within knowledge management knowledge is made manageable.